

In the claims:

1. (Currently amended) A method of producing light metal castings composed of magnesium or magnesium alloys, comprising the steps of supplying a liquid metal first to a casting retort; pumping gas under pressure into the casting retort so as to press the liquid metal into a preliminarily evacuated casting mold; performing a production process continuously in a closed loop without interruption of individual casting process with a pressure differential between the casting retort and the casting mold; heating of the liquid metal in a lower part of a melting device which adjoins a feed system; after reaching a melting temperature approximately 630°, providing a connection of between said casting retort and said casting mold through a valve system over a short time without connection with outside; selecting a quantity of the supplied liquid light metal to be a multiple of a quantity of the light metal required for each light metal casting so as to compensate losses of a quantity of the light metal in said casting retort during a casting process and to prevent inflow of a protective gas; performing a transformation of the liquid metal from a melting condition with a temperature of approximately 630°C to a solidification condition from a tool side to a lower region of a valve seat; and supplying and withdrawing at the protective gas by a differential pressure system.

2. (Previously presented) A method as defined in claim 1; and further comprising performing an additional supply of solid light metal by a sluice device under an available pressure difference between outer atmosphere and an inner pressure in the melting device.

3. (Previously presented) A method as defined in claim 1; and further comprising supplying the light metal selectively in a liquid form through a metal supply conduit and/or as a solid light metal through a sluice device.

4. (Original) A method as defined in claim 1; and further comprising selecting a quantity of the supply light metal to amount to a multiple of a light metal quantity for a light metal parts to be produced.

5. (Currently amended) A method as defined in claim 1; and further comprising solidifying the liquid light metal ~~by~~with a movement of a tool device away.

6. (Previously presented) A method as defined in claim 1; and further comprising supplying and withdrawing of the protective gas through a pressure intensifier, and compensating pressure losses by protective gas additional supply.

7. (Previously presented) A method as defined in claim 1; and further comprising performing the solidification of the light metal by lifting a casting retort and thereafter placing the casting retort on a tool device of a next workpiece to be treated.

Claims 8-16 cancelled.